State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
South Central Regional Office • 225 Green Street, Suite 601 • Fayetteville, North Carolina 28301
Telephone: (919) 486-1191 Fax: (919) 486-1791

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

December 3, 1991

Robert J. Waldrop
Environmental Manager
ReUse Technology, Inc.
100 Chastain Center Blvd., Suite 155
Kennesaw, Georgia 30144

Re: Coal Ash Utilization
E.B. Grain Company, Inc., U.S. 301, Rocky Mount, N.C.
Nash County

Dear Mr. Waldrop:

The Solid Waste Section has reviewed the referenced project for the use of coal flyash as structural fill. Based upon the information received, the project appears to meet the guidelines previously agreed to for such reuse.

Even though a specific solid waste permit is not required, this approach by the Section does not exempt the activity from other local, state or federal regulations including, but not limited to, zoning restrictions, flood plain regulations, wetland restrictions or sedimentation/erosion control regulations.

If you have any questions, do not hesitate to contact our office.

Sincerely,

Terry F. Dover

Terry F. Dover
Eastern Area Supervisor
Solid Waste Section

TFD/wlf

cc: Jim Coffey
Fred Wood
Central Files-Nash County-N/F

ReUse Technology, Inc.
PERMITTING • DISPOSAL PLANNING • REUSE

100 Chastain Center Blvd.
Suite 155
Kennesaw, Georgia 30144
Phone (404) 425-7676
Fax (404) 425-7681

November 22, 1991

Mr. Terry F. Dover
North Carolina Department of Environment
Health and Natural Resources
Solid Waste Management Section
225 Green Street
Wachovia Building, Suite 601
Fayetteville, NC 28301

Re: Coal Ash Utilization
EB Grain Co., Inc. - Rocky Mount
Nash County

Dear Mr. Dover:

We request approval for an additional coal ash structural fill project in the Rocky Mount area. We propose to use the coal ash as road bed material at the EB Grain Facility on Highway 301 north of Rocky Mount. The enclosed plans give the details of this project. The coal ash to be used in this project will be obtained from the Cogentrix power plants located in Rocky Mount, Hopewell, Portsmouth, and Kenansville. The results of TCLP and pH tests performed on representative samples of coal ash from these plants are also enclosed. The placement will be conducted in the same manner as our projects previously approved by NCDEHNR.

As previously approved, we will agree to the following conditions:

1. To prevent dusting, all ash will be conditioned to 15% moisture and transported in tarped dump trucks.

2. To facilitate compaction, the moisture of the ash will be tested at the site by use of a water wagon.

3. All coal ash structural fill within the development area will be capped with a minimum of 6 inches of earth cover.

Slopes will receive 12 inches minimum compacted earth and 6 inches of topsoil.

5. Site development will be in accordance with an approved soil erosion and sediment control plan.

6. Approval for coal ash fill shall become voidable unless the facility is constructed in accordance with the approved plans, specifications, and supporting data.

7. Approval is subject to the nature and volume of ash materials discussed and other supporting data.

8. The facility shall be properly maintained and operated at all times.

9. This approval is not transferrable.

10. In the event that the facility fails to perform satisfactorily, including the creation of nuisance conditions, ReUse Technology shall take such immediate corrective action as may be required by the Solid Waste Management Section including the construction of additional or replacement waste water treatment or disposal facilities.

11. Approval may be rescinded unless the reuse program is carried out in a manner which will protect the assigned water quality and groundwater quality standards.

12. All ash utilization on roadways shall be performed in accordance with the North Carolina Department of Transportation specifications.

13. The facility shall be effectively maintained and operated as a non-discharge system to prevent the discharge of any wastewater resulting from the operation of the facility.

14. The issuance of this approval shall not relieve ReUse Technology of the responsibility for damages to surface water or groundwater resulting from the operation of this facility.

15. Adequate records of the ash reuse program shall be maintained by ReUse Technology. These records shall include but are not necessarily limited to the following:

a. date of ash application,
b. type of ash used,
c. type of application,
d. volume of ash applied in tons,
e. location of use, and
f. ash receiver.

16. No ash will be placed within 100 feet of any water supply well.

17. No ash shall be placed within one foot of the mean seasonal high water table.

18. ReUse Technology shall supply an ash analysis to all users.

19. The following buffers shall be maintained:

a. 100 feet between application area and any residence, place of business, or place of public assembly, unless permission is first obtained by the property owner.

b. 50 feet between any application area and any stream, creek, lake, pond or other surface water body.

c. 100 feet between application area and property lines unless permission is first obtained from adjacent property owners.

20. Adequate provisions shall be taken to prevent wind erosion and surface runoff from conveying pollutants from the ash application area onto the adjacent property or into the surface waters.

21. The following uses of ash are hereby authorized:

a. Fly ash and bottom ash may be used for structural fills such as roadway embankments and foundations.

b. Fly ash and bottom ash may be used for backfill materials around water, sewer, and storm drain piping.

c. Bottom ash may be used for secondary road overlay.

Your continued cooperation with our ash reuse program is greatly appreciated. If there are any questions, please call Bob Waldrop at (404)425-7676.

Yours truly,

Robert J. Waldrop
Environmental Manager

RJW/mlb

Enclosures

RT Environmental Services
A Division of ReUse Technology, Inc.

100 Chastain Center Blvd.
Suite 155
Kennesaw, Georgia 30144
Phone (404) 425-7676
Fax (404) 425-7681

November 11, 1991

The following TCLP analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. - RT01891
Location: Cogentrix Kenansville Fly Ash
Laboratory Submittal Date: 10/21/91

The first table gives a brief description of the AA method used, the minimum detection level and reporting units for each metal. The second table gives the actual analytical results expressed in the appropriate reporting units given in Table 1.

Table 1

	AA Method	Minimum Detection Level	Reporting Units
Arsenic	Furnace	0.03	mg/L (ppm)
Barium	Flame	0.2	mg/L (ppm)
Cadmium	Flame	0.01	mg/L (ppm)
Chromium	Flame	0.03	mg/L (ppm)
Lead	Flame	0.1	mg/L (ppm)
Mercury	Cold Vapor	0.0002	mg/L (ppm)
Selenium	Furnace	0.05	mg/L (ppm)
Silver	Flame	0.02	mg/L (ppm)

Table 2

	RT01891	Regulatory Limit
Arsenic	0.11	5.0
Barium	<0.2	100.0
Cadmium	0.03	1.0
Chromium	<0.03	5.0
Lead	<0.1	5.0
Mercury	<0.0002	0.2
Selenium	0.14	1.0
Silver	<0.02	5.0

Please feel free to call if you have any questions concerning these data.

Sincerely,

Gordon LaPean

Gordon LaPean
Laboratory Manager

RT Environmental Services
A Division of ReUse Technology, Inc.

100 Chastain Center Blvd.
Suite 155
Kennesaw, Georgia 30144
Phone (404) 425-7676
Fax (404) 425-7681

November 11, 1991

The following TCLP analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. - RT01888
Location: Cogentrix Rocky Mount Fly Ash
Laboratory Submittal Date: 10/21/91

The first table gives a brief description of the AA method used, the minimum detection level and reporting units for each metal. The second table gives the actual analytical results expressed in the appropriate reporting units given in Table 1.

Table 1

	AA Method	Minimum Detection Level	Reporting Units
Arsenic	Furnace	0.03	mg/L (ppm)
Barium	Flame	0.2	mg/L (ppm)
Cadmium	Flame	0.01	mg/L (ppm)
Chromium	Flame	0.03	mg/L (ppm)
Lead	FLame	0.1	mg/L (ppm)
Mercury	Cold Vapor	0.0002	mg/L (ppm)
Selenium	Furnace	0.05	mg/L (ppm)
Silver	Flame	0.02	mg/L (ppm)

Table 2

	RT01888	Regulatory Limit
Arsenic	<0.03	5.0
Barium	<0.2	100.0
Cadmium	0.02	1.0
Chromium	<0.03	5.0
Lead	<0.1	5.0
Mercury	<0.0005	0.2
Selenium	<0.05	1.0
Silver	<0.02	5.0

Please feel free to call if you have any questions concerning these data.

Sincerely,

Gordon LaPean

Gordon LaPean
Laboratory Manager

RT Environmental Services
A Division of ReUse Technology, Inc.

100 Chastain Center Blvd.
Suite 155
Kennesaw, Georgia 30144
Phone (404) 425-7676
Fax (404) 425-7681

November 11, 1991

The following TCLP analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. - RT01887
Location: Cogentrix Hopewell
Composite Fly Ash and Bottom Ash
Laboratory Submittal Date: 10/21/91

The first table gives a brief description of the AA method used, the minimum detection level and reporting units for each metal. The second table gives the actual analytical results expressed in the appropriate reporting units given in Table 1.

Table 1

	AA Method	Minimum Detection Level	Reporting Units
Arsenic	Furnace	0.03	mg/L (ppm)
Barium	Flame	0.2	mg/L (ppm)
Cadmium	Flame	0.01	mg/L (ppm)
Chromium	Flame	0.03	mg/L (ppm)
Lead	Flame	0.1	mg/L (ppm)
Mercury	Cold Vapor	0.0002	mg/L (ppm)
Selenium	Furnace	0.05	mg/L (ppm)
Silver	Flame	0.02	mg/L (ppm)

Table 2

	RT01887	Regulatory Limit
Arsenic	<0.03	5.0
Barium	<0.2	100.0
Cadmium	0.03	1.0
Chromium	0.08	5.0
Lead	0.7	5.0
Mercury	<0.0002	0.2
Selenium	<0.05	1.0
Silver	<0.02	5.0

Please feel free to call if you have any questions concerning these data.

Sincerely,

Gordon LaPean

Gordon LaPean
Laboratory Manager

RT Environmental Services
A Division of ReUse Technology, Inc.

100 Chastain Center Blvd.
Suite 155
Kennesaw, Georgia 30144
Phone (404) 425-7676
Fax (404) 425-7681

November 11, 1991

The following TCLP analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. - RT01886
Location: Cogentrix Portsmouth
Composite Fly Ash and Bottom Ash
Laboratory Submittal Date: 10/21/91

The first table gives a brief description of the AA method used, the minimum detection level and reporting units for each metal. The second table gives the actual analytical results expressed in the appropriate reporting units given in Table 1.

Table 1

	AA Method	Minimum Detection Level	Reporting Units
Arsenic	Furnace	0.03	mg/L (ppm)
Barium	Flame	0.2	mg/L (ppm)
Cadmium	Flame	0.01	mg/L (ppm)
Chromium	Flame	0.03	mg/L (ppm)
Lead	Flame	0.1	mg/L (ppm)
Mercury	Cold Vapor	0.0002	mg/L (ppm)
Selenium	Furnace	0.05	mg/L (ppm)
Silver	Flame	0.02	mg/L (ppm)

Table 2

	RT01886	Regulatory Limit
Arsenic	<0.03	5.0
Barium	<0.2	100.0
Cadmium	0.03	1.0
Chromium	0.06	5.0
Lead	0.2	5.0
Mercury	<0.0002	0.2
Selenium	0.09	1.0
Silver	<0.02	5.0

Please feel free to call if you have any questions concerning these data.

Sincerely,

Gordon LaPean

Gordon LaPean
Laboratory Manager

RT Environmental Services
A Division of ReUse Technology, Inc.

100 Chastain Center Blvd.
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Kennesaw, Georgia 30144
Phone (404) 425-7676
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November 21, 1991

ReUse Technology, Inc.
100 Chastain Center Blvd.
Suite 155
Kennesaw, GA 30144

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. RT01891 Project account code: RT001
Location code: FLYASH
Location Description: FLYASH FROM STRUCT FILL PRJ
Client ID #: K'VILLE FLY
Laboratory submittal date: 10/21/91

Parameter	Result
pH	4.43

If there are any questions regarding this data, please do not hesitate to call.

Sincerely,

Gordon LaPean

Gordon LaPean
Laboratory Manager

RT Environmental Services
A Division of ReUse Technology, Inc.

100 Chastain Center Blvd.
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November 21, 1991

ReUse Technology, Inc.
100 Chastain Center Blvd.
Suite 155
Kennesaw, GA 30144

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. RT01888 Project account code: RT001
Location code: FLYASH
Location Description: FLYASH FROM STRUCT FILL PRJ
Client ID #: ROCKY MT. FLY
Laboratory submittal date: 10/21/91

Parameter	Result
pH	6.07

If there are any questions regarding this data, please do not hesitate to call.

Sincerely,

Gordon LaPean
Laboratory Manager

RT Environmental Services
A Division of ReUse Technology, Inc.

100 Chastain Center Blvd.
Suite 155
Kennesaw, Georgia 30144
Phone (404) 425-7676
Fax (404) 425-7681

November 21, 1991

ReUse Technology, Inc.
100 Chastain Center Blvd.
Suite 155
Kennesaw, GA 30144

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. RT01888 Project account code: RT001
Location code: FLYASH
Location Description: FLYASH FROM STRUCT FILL PRJ
Client ID #: ROCKY MT. FLY
Laboratory submittal date: 10/21/91

Parameter	Result
pH	6.07

If there are any questions regarding this data, please do not hesitate to call.

Sincerely,

Gordon LaPean
Laboratory Manager

RT Environmental Services

A Division of ReUse Technology, Inc.

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Fax (404) 425-7681

November 21, 1991

ReUse Technology, Inc.
100 Chastain Center Blvd.
Suite 155
Kennesaw, GA 30144

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. RT01887 Project account code: RT001
Location code: FLYASH
Location Description: FLYASH FROM STRUCT FILL PRJ
Client ID #: HOPEWELL FLY
Laboratory submittal date: 10/21/91

Parameter	Result
pH	6.70

If there are any questions regarding this data, please do not hesitate to call.

Sincerely,

Gordon LaPean
Laboratory Manager

RT Environmental Services
A Division of ReUse Technology, Inc.

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Kennesaw, Georgia 30144
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November 21, 1991

ReUse Technology, Inc.
100 Chastain Center Blvd.
Suite 155
Kennesaw, GA 30144

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. RT01887 Project account code: RT001
Location code: FLYASH
Location Description: FLYASH FROM STRUCT FILL PRJ
Client ID #: HOPEWELL FLY
Laboratory submittal date: 10/21/91

Parameter	Result
pH	6.70

If there are any questions regarding this data, please do not hesitate to call.

Sincerely,

Gordon LaPean
Laboratory Manager

RT Environmental Services
A Division of ReUse Technology, Inc.

100 Chastain Center Blvd.
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Kennesaw, Georgia 30144
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Fax (404) 425-7681

November 21, 1991

ReUse Technology, Inc.
100 Chastain Center Blvd.
Suite 155
Kennesaw, GA 30144

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. RT01886 Project account code: RT001
Location code: FLYASH
Location Description: FLYASH FROM STRUCT FILL PRJ
Client ID #: PORTSMOUTH FLY
Laboratory submittal date: 10/21/91

Parameter	Result
pH	4.10

If there are any questions regarding this data, please do not hesitate to call.

Sincerely,

Gordon LaPean
Laboratory Manager

RT Environmental Services
A Division of ReUse Technology, Inc.

100 Chastain Center Blvd.
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Kennesaw, Georgia 30144
Phone (404) 425-7676
Fax (404) 425-7681

November 21, 1991

ReUse Technology, Inc.
100 Chastain Center Blvd.
Suite 155
Kennesaw, GA 30144

The following analytical results have been obtained for the indicated sample which was submitted to this laboratory:

Sample I.D. RT01886 Project account code: RT001
Location code: FLYASH
Location Description: FLYASH FROM STRUCT FILL PRJ
Client ID #: PORTSMOUTH FLY
Laboratory submittal date: 10/21/91

Parameter	Result
pH	4.10

If there are any questions regarding this data, please do not hesitate to call.

Sincerely,

Gordon LaPean
Laboratory Manager

E.B. GRAIN CO.
US 301
ROCKY MOUNT

12/3/91

ROAD BED FILL (specific areas not delineated)

Ash from Cogentrix - Rocky Mount, Hopewell, Portsmouth, and Kenansville

TCLP Data Submitted (mg/l):

	PDWS	DETLIMIT	ROCKY MT	PORTSMOUTH	HOPEWELL
As	0.05	0.03	<0.3	<0.03	<0.03
Ba	1.0	0.2	<0.2	<0.2	<0.2
Cd	0.01	0.01	0.02	0.03	0.03
Cr	0.05	0.03	<0.03	0.06	0.08
Pb	0.05	0.1	<0.1	0.2	0.7
Hg	0.002	0.0002	<0.0005	<0.0002	<0.0002
Se	0.01	0.05	<0.05	0.09 9x	<0.05
Ag	0.05	0.02	<0.02	<0.02	<0.02

	PDWS	DETLIMIT	KENANSVILLE
As	0.05	0.03	0.11
Ba	1.0	0.2	<0.2
Cd	0.01	0.01	0.03
Cr	0.05	0.03	<0.03
Pb	0.05	0.1	<0.1
Hg	0.002	0.0002	<0.0002
Se	0.01	0.05	0.14 14x
Ag	0.05	0.02	<0.02

- det limit too high
-> Drinking Water MCL
-> 5x Drinking Water MCL